I-42

SUNSET RELAY

The I-42 module, thanks to an incorpated detector, will activated the output when he do not receive enough light. It is supplyed by 12 V. D.C. and its operating sensitivity could be adjusted using a potentimeter inserted in the P.C.B. It has a relay output allowing any kind of load or device with 5A as maximum consumption.
It includ protection against polarity inversion, operating indicator led, connector to withdraw the potentiometer and terminals to connect it.

TECHNICAL CHARACTERISTICS.

Voltage	12 V. D.C.
Minimum Consumption	5 mA.
Maximum Consumption	60 mA.
Maximum Load Accepted by the Relay	5 A.
Maximum Power Accepted by the Relay	1000 W.
Minimum Detection Level	25 Lux.
Maximum Detection Level	130 Lux.
Protection Against Polarity Inversion	Yes.
Operating Indicator Led	Yes.
Sizes	65x45x30 mm.

OPERATING.

POWER SUPPLY. The I-42 circuit had to be supplied by a 12 VDC power supply correctly filtred. Do not use suppliers or rectifiers disturbing the module's operating. Then, we recommended you the FE-2 power supply which has been developped to perfectly answer to the circuit needs. Connect the positive of the power supply to the positive terminal indicated in the wiring map, then connect the negative of the power supply to the negative terminal indicated in the circuit.

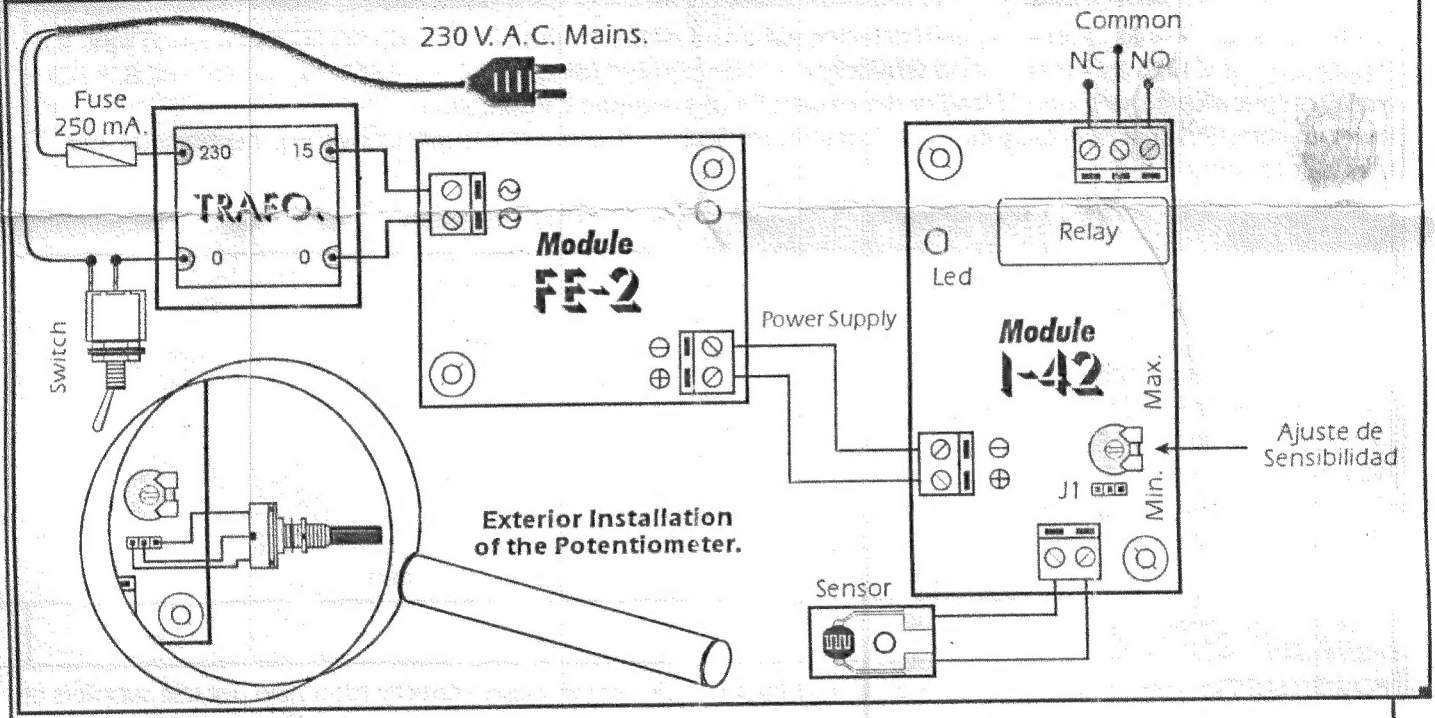
OPERATING. Following indications mentioned in the Genral Wiring Map, install the probe to the reserved terminal. If the assembly need cable superior than 30 cm, you had to use shielded cable.
When all connexion are done, supply the module. Therefor if you manipulate the detector, you could verify that when the detector do not receive light it will activate the module (led lighting and output activate).
The I-42 circuit offer the possibility to adapt the module's sensitivity acording to the received light. To determinate this sensitivity you had to adjust the potentiometer. Placing it at the minimum the circuit will lose sensitivity and need more darkness to be activated. If you place the potentiometer at the maximum, the module will earn sensitivity and it need less darkness to be activated.
If you had to place the I-42 module at the exterior (bad weather) you had to fit the module into a watherproof box to protect module and detector but allowing it to detect.
The I-42 module allow the possibility to use to be used in inverted mode. To obtain this function you had to desold the R5 resistor (4K7) indicated in the circuit and sold it in the place indicated as R6.

EXTERIOR INSTALLATION OF THE POTENTIOMETER. If you wish to withdraw or substitute the potentiometer inserted into the P.C.B by an exterior one, firstly you had to supress the already soldered potentiometer. Then, and as it is indicated in the drawing, connect the cable between the element or jumper indicated as "J1" and exterior potentiometer. Both potentiometers have to be lineal and offering 22 KOhms (Cable had to be inferior than 30 cm).

OUTPUT. CONNECTION OF THE LOAD. The output Module (I-42) is controlled by a relay, allowing any load until 5 A. as maximum consumption. The relay has 3 output terminals the normally open at quiescent (NA), the mormally closed at quiescent (NC) and the common. The operating of this mechanism is the same as a switch with two (2) terminals NA and common, if you wish that the output will be activated when the detector do not receive light, or between the NC and the common to obtain the reverse operating.
In the Output connection paragraph, you could apreciate the typical connection for a devices operating at 12 VDC and to operate at 220 VAC.
The installation is between the Common and NA, where the de\ ce or load that you wish to control will be activated during the operating time.
To obtain the inverse operating, substitute in the connection the NA by the NC.

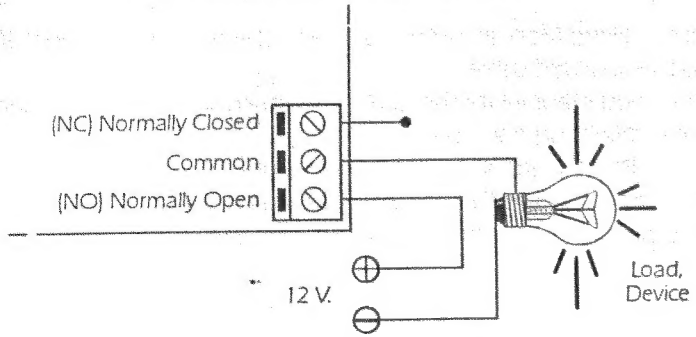
WATER & LIGHT DETECTORS. Ref. FULL9816_Ang. I-42

GENERAL WIRING MAP.



OUTPUT. LOAD CONNECTION.

12 V. D.C. TO CONNECTION



230 V. A.C. TO CONNECTION